

# Letter to the Editor on: “Sterile Seroma Resulting from Multilevel XLIF Procedure as Possible Adverse Effect of Prophylactic Vancomycin Powder: A Case Report” (Evid Based Spine Care J 2014;5(2):127–133)

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Global Spine J 2015;5:259–260.

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The case published by Youssef et al is highly interesting in my opinion, but not for what the presentation focuses on but rather for what it omits.<sup>1</sup> The preoperative lumbar sagittal alignment (Fig. 2) is rather nice with ~50 degrees from T12 to S1, despite the severe degenerative changes that led to the indication for surgery. The postoperative film (Fig. 5) shows a severe loss of lumbar lordosis, a so-called iatrogenic flat back, which is even more surprising because the description of the surgical procedure includes an extensive posterior decompression and instrumentation including complete facetectomies. It is probably explained by the far posterior positioning of the broad XLIF cages not permitting the required lordosis correction. The 6 weeks' standing lateral film (Fig. 7) already shows a decompensated sagittal dysbalance, which is a predisposing factor for sacral instrumentation failure after long-segment lumbar arthrodeses. The sacral fracture that this patient suffered was

almost certainly a consequence of both the unprotected sacral instrumentation and the iatrogenic sagittal dysbalance. When looking at the 6-month lateral standing film (Fig. 13) after extension of the instrumentation to the pelvis, I am convinced that with the sagittal dysbalance uncorrected and visibly progressing because of the superior decompensation, further surgery is unavoidable. I find it surprising that neither the article text nor the editorial perspective even mentions the true clinical problem of this case.

## Reference

- 1 Youssef JA, Orndorff DG, Scott MA, Ebner RE, Knewitz AP. Sterile seroma resulting from multilevel XLIF procedure as possible adverse effect of prophylactic vancomycin powder: a case report. *Evid Based Spine Care J* 2014;5(2):127–133

## Editorial Perspective

*EBSJ* thanks our colleague Dr. Birkenmaier for his thoughtful comment, and *EBSJ* is glad to present these views to invite further discussion by our readership.

From an *EBSJ* standpoint, our perspective was clearly focused less on the sagittal alignment and more on the magnitude and decision making involved in such a major surgery, especially when adverse events occur. In re-reviewing these images, it appears clear that the sagittal balance as shown on the standing films after such major fusion surgery is not satisfactory. The overall lordosis angle of the inferior

end plate L1 to the superior end plate of S1 remains at around 20 degrees. The positive sagittal inclination of this patient in its present state will certainly predispose the patient to develop rostral adjacent segment pathology. Further management of the forward tilt requires a comprehensive radiographic and clinical assessment including measurements of the spinopelvic inclination angles using full spinal views and evaluation for hip and knee flexion contractions and conditioning of the patient hip and spine extensor musculature. Beyond the radiographic parameters, the global spinal

alignment with understanding of the impact of the lower extremity joint mobility and the integrity of the extensor muscles is an important element of understanding sagittal balance.<sup>1</sup>

## Reference

- 1 Elgafy H, Bransford R, Semaan H, Wagner T. Clinical and radiographic evaluation of sagittal imbalance: a new radiographic assessment. *Am J Orthop* 2011;40(3):E30–E34